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-1--

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SEQUENCE LISTING

<110> COMMISSARIAT A L'ENERGIE ATOMIQUE
UNIVERSITE PIERRE ET MARIE CURIE (PARIS VI)

<120> PEPTIDES HAVING AN AFFINITY FOR A PHOSPHOLIPID AND
USES

<130> B14001.3EE

<140> PCT/FR03/02025

<141> 2003-06-30

<150> FR N°02 08202

<151> 2002-07-01

<160> 14

<170> PatentIn Ver. 2.1

<210> 1

<211> 75

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 1

Gly Phe Asp Glu Arg Ala Asp Val Glu Thr Leu Arg Lys Ala Met Lys
1 5 10 15

Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu Leu Thr Ser Arg
20 25 30

Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Tyr Lys Thr Leu Phe
35 40 45

Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe
50 55 60

Glu Lys Leu Val Val Ala Leu Leu Lys Pro Ser
65 70 75

<210> 2

<211> 75

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 2

Asn Phe Asp Ala Glu Arg Asp Ala Leu Asn Ile Arg Lys Ala Ile Lys
1 5 10 15

Gly Met Gly Val Asp Glu Asp Thr Ile Val Asn Ile Leu Thr Asn Arg
20 25 30

Ser Asn Ala Gln Arg Gln Asp Ile Ala Phe Ala Tyr Gln Arg Arg Thr
35 40 45
Lys Arg Glu Leu Ala Ser Asp Leu Lys Ser Glu Leu Ser Gly His Leu
50 55 60
Glu Arg Val Ile Leu Gly Leu Leu Lys Thr Ser
65 70 75

<210> 3
<211> 75
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 3
Asp Phe Ser Pro Ser Val Asp Ala Glu Ala Ile Arg Lys Ala Ile Lys
1 5 10 15
Gly Ile Gly Thr Asp Glu Asp Met Leu Ile Ser Ile Leu Thr Glu Arg
20 25 30
Ser Asn Ala Gln Arg Gln Leu Ile Val Lys Glu Tyr Gln Ala Ala Tyr
35 40 45
Gly Arg Glu Leu Lys Asp Asp Leu Lys Ser Glu Leu Ser Gly His Phe
50 55 60
Glu Arg Leu Met Val Ala Leu Val Thr Pro Ser
65 70 75

<210> 4
<211> 75
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 4
Gly Phe Asn Ala Met Glu Asp Ala Gln Thr Leu Arg Lys Ala Met Lys
1 5 10 15
Gly Leu Gly Thr Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr Arg
20 25 30
Asn Thr Ala Gln Arg Gln Glu Ile Arg Thr Ala Tyr Lys Ser Thr Ile
35 40 45
Gly Arg Asp Leu Ile Asp Asp Leu Lys Ser Glu Leu Ser Gly Asn Phe
50 55 60
Glu Arg Val Ile Val Gly Met Met Thr Pro Ser
65 70 75

<210> 5
<211> 75
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 5
Gly Phe Asp Pro Asn Gln Asp Ala Glu Ala Leu Arg Thr Ala Met Lys
1 5 10 15

Gly Phe Gly Ser Asp Glu Glu Ala Ile Leu Asp Ile Ile Thr Ser Arg
20 25 30

Ser Asn Arg Gln Arg Gln Glu Val Cys Gln Ser Tyr Lys Ser Leu Tyr
35 40 45

Gly Arg Asp Leu Ile Ala Asp Leu Lys Ser Glu Leu Thr Gly Lys Phe
50 55 60

Glu Arg Leu Ile Val Gly Leu Met Arg Pro Ser
65 70 75

<210> 6
<211> 75
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 6
Gly Phe Asn Pro Asp Ala Asp Ala Lys Ala Leu Arg Lys Ala Met Lys
1 5 10 15

Gly Leu Gly Thr Asp Glu Asp Thr Ile Ile Asp Ile Ile Thr His Arg
20 25 30

Ser Asn Val Gln Arg Gln Gln Ile Arg Gln Thr Phe Lys Ser His Phe
35 40 45

Gly Arg Asp Leu Met Thr Asp Leu Lys Ser Glu Ile Ser Gly Asp Leu
50 55 60

Glu Arg Leu Ile Leu Gly Leu Met Met Pro Ser
65 70 75

<210> 7
<211> 75
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence

derived from a human annexin

<400> 7
Pro Gly Asp Ala Ile Arg Asp Ala Glu Ile Leu Arg Lys Ala Met Lys
1 5 10 15

Gly Phe Gly Thr Asp Glu Gln Ala Ile Val Asp Val Val Ala Asn Arg
20 25 30

Ser Asn Asp Gln Arg Gln Lys Ile Lys Ala Ala Phe Lys Thr Ser Tyr
35 40 45

Gly Arg Asp Leu Ile Lys Asp Leu Lys Ser Glu Leu Ser Gly Asn Met
50 55 60

Glu Arg Leu Ile Leu Ala Leu Phe Met Pro Ser
65 70 75

<210> 8

<211> 75

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 8

His Phe Asn Pro Asp Pro Asp Val Glu Thr Leu Arg Lys Ala Met Lys
1 5 10 15

Gly Ile Gly Thr Asn Glu Gln Ala Ile Ile Asp Val Leu Thr Lys Arg
20 25 30

Ser Asn Thr Gln Arg Gln Thr Ile Ala Lys Ser Phe Lys Ala Gln Phe
35 40 45

Gly Arg Asp Leu Thr Glu Asp Leu Lys Ser Glu Leu Ser Gly Lys Leu
50 55 60

Glu Arg Leu Ile Val Ala Leu Met Tyr Pro Ser
65 70 75

<210> 9

<211> 75

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 9

Gly Phe Asp Pro Leu Arg Asp Ala Glu Val Leu Arg Lys Ala Met Lys
1 5 10 15

Gly Phe Gly Thr Asp Glu Gln Ala Ile Ile Asp Cys Leu Gly Ser Arg
20 25 30

Ser Asn Lys Gln Arg Gln Gln Ile Leu Leu Ser Phe Lys Thr Ala Tyr
35 40 45

Gly Arg Asp Leu Ile Lys Asp Leu Lys Ser Glu Leu Ser Gly Asn Phe
50 55 60

Glu Lys Thr Ile Leu Ala Leu Met Lys Thr Ser
65 70 75

<210> 10

<211> 75

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 10

Gly Phe Asp Val Asp Arg Asp Ala Lys Lys Leu Arg Lys Ala Met Lys
1 5 10 15

Gly Met Gly Thr Asn Glu Ala Ala Ile Ile Glu Ile Leu Ser Gly Arg
20 25 30

Thr Ser Asp Glu Arg Gln Gln Ile Lys Gln Lys Tyr Lys Ala Thr Tyr
35 40 45

Gly Arg Glu Leu Glu Glu Asp Leu Lys Ser Glu Leu Ser Gly Asn Phe
50 55 60

Glu Lys Thr Ala Leu Ala Leu Leu Asp Arg Ser
65 70 75

<210> 11

<211> 79

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<220>

<223> Xaa of position 22 is Leu, Met or Trp

<220>

<223> Xaa of position 34 is Thr or Lys

<220>

<223> Xaa of position 45 is Ser or Lys

<220>

<223> Xaa of position 48 is Phe or Tyr

<220>

<223> Xaa of position 50 is Thr or Glu

<220>

<223> Xaa of position 63 is Glu or Lys

<220>

<223> Xaa of position 69 is Glu or Lys

<220>

<223> Xaa of position 71 is Glu or Leu

<400> 11

Gly Ser Gly Cys Gly Phe Asp Glu Arg Ala Asp Val Glu Thr Leu Arg
1 5 10 15

Lys Ala Met Lys Gly Xaa Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu
20 25 30

Leu Xaa Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Xaa Ala Ala Xaa
35 40 45

Lys Xaa Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Xaa Leu
50 55 60

Thr Gly Lys Phe Xaa Lys Xaa Val Val Ala Leu Leu Lys Pro Ser
65 70 75

<210> 12

<211> 78

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<400> 12

Gly Ser Pro Gly Phe Asp Glu Arg Ala Asp Val Glu Thr Leu Arg Lys
1 5 10 15

Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu Leu
20 25 30

Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Tyr Lys
35 40 45

Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu Thr
50 55 60

Gly Lys Phe Glu Lys Leu Val Val Ala Leu Leu Lys Pro Ser
65 70 75

<210> 13

<211> 83

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: sequence
derived from a human annexin

<220>
<223> Xaa of position 25 is Leu, Met or Trp

<220>
<223> Xaa of position 37 is Thr or Lys

<220>
<223> Xaa of position 48 is Ser or Lys

<220>
<223> Xaa of position 51 is Phe or Tyr

<220>
<223> Xaa of position 53 is Thr or Glu

<220>
<223> Xaa of position 66 is Glu or Lys

<220>
<223> Xaa of position 72 is Glu or Lys

<220>
<223> Xaa of position 74 is Glu or Leu

<400> 13
Gly Ser Glu Cys Asp Phe Pro Gly Phe Asp Glu Arg Ala Asp Val Glu
1 5 10 15

Thr Leu Arg Lys Ala Met Lys Gly Xaa Gly Thr Asp Glu Glu Ser Ile
20 25 30

Leu Thr Leu Leu Xaa Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Xaa
35 40 45

Ala Ala Xaa Lys Xaa Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys
50 55 60

Ser Xaa Leu Thr Gly Lys Phe Xaa Lys Xaa Val Val Ala Leu Leu Lys
65 70 75 80

Pro Ser Arg

<210> 14
<211> 87
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequence
derived from a human annexin

<220>
<223> Xaa of position 29 is Leu, Met or Trp

<220>
<223> Xaa of position 41 is Tyr or Lys

<220>
<223> Xaa of position 52 is Ser or Lys

> <220>
> <223> Xaa of position 55 is Phe or Tyr

<220>
<223> Xaa of position 57 is Thr or Glu

<220>
<223> Xaa of position 70 is Glu or Lys

<220>
<223> Xaa of position 76 is Glu or Lys

<220>
<223> Xaa of position 78 is Glu or Leu

<400> 14
Gly Ser Gly Cys Gly Thr Glu Thr Asp Phe Pro Gly Phe Asp Glu Arg
1 5 10 15

Ala Asp Val Glu Thr Leu Arg Lys Ala Met Lys Gly Xaa Gly Thr Asp
20 25 30

Glu Glu Ser Ile Leu Thr Leu Leu Xaa Ser Arg Ser Asn Ala Gln Arg
35 40 45

> Gln Glu Ile Xaa Ala Ala Xaa Lys Xaa Leu Phe Gly Arg Asp Leu Leu
50 55 60

> Asp Asp Leu Lys Ser Xaa Leu Thr Gly Lys Phe Xaa Lys Xaa Val Val
65 70 75 80

Ala Leu Leu Lys Pro Ser Arg
85